

"An Integrated Exploration Strategy"

Many new scientific findings in planetary science (potential life in a Mars meteorite, possible frozen water at the Lunar Poles, permanently lit region at the lunar south pole, recent water flow on Mars) provide a compelling case for humans to once again leave low earth orbit and explore. Robotic missions are capable of conducting science, but only humans can explore and discover. The challenge is to build an affordable exploration program. This can be done by aggressively evolving our current systems, developing high pay off technologies, leveraging off commercial and other agencies' programs, and developing a set of core capabilities to be used to explore a variety of destinations.

NASA has a Strategic Roadmap based on detailed mission studies to develop these core technologies and capabilities to allow human space exploration. Advances in human support, launch vehicle improvements, development of in-space transportation systems, efficient power generation and distribution, and In-Situ Resource Utilization are all required to meet the exploration challenge.

The groundwork today will provide the technology and tools needed to conduct safe, affordable, and efficient exploration to the moon, asteroids, deep space observatories and Mars.